CLAIM LISTING

1. (currently amended) In a network utilizing a shared packet pipe to transport a plurality of types of packets each having a different priority, a method for appending multiple packets in a shared packet pipe, the method comprising the steps of:

flagging a packet header of packet having a low priority to identify pending packets to allow for transmission of packets having a high priority;

prematurely ending the transmission of a packet having the low priority;

placing the remainder of the packet having the low priority in a storage device;

transmitting a packet having the high priority; and

transmitting the remainder of the packet having the low priority once the packet having the high priority is finished transmitting, wherein the step of flagging the packet header further comprises the step of determining the priority of an incoming packet and wherein the step of determining the priority of an incoming packet further comprises checking a CRC on the packet having a low priority.

2. (original) The method of claim 1, wherein the step of prematurely ending the transmission of a packet having a low priority further comprises the step of inserting a packet flag at the place in which the packet is to be divided.

3. (canceled)

4. (canceled)

5. (original) The method of claim 1, wherein the step of flagging the packet header further comprises the step of periodically checking the priority of the data packet being transmitted.

6. (canceled)

7. (currently amended) In a network utilizing a shared packet pipe to transport a plurality of types of packets each having a different priority, a method for appending multiple packets in a shared packet pipe, the method comprising the steps of:

flagging a packet header of packet having a low priority to identify pending packets to allow for transmission of packets having a high priority;

prematurely ending the transmission of a packet having the low priority;

placing the remainder of the packet having the low priority in a storage device;

transmitting a packet having the high priority; and

transmitting the remainder of the packet having the low priority once the packet having the high priority is finished transmitting, wherein the step of flagging a packet header further comprises the steps of identifying the packet of a low priority and identifying a beginning of the packet of a high priority and, wherein the step of identifying the packets of a low priority further comprises the step of assuming the priority of the packet based on results from the step of checking the CRC on the packet having the low priority.

8. (original) The method of claim 1, wherein the step of flagging a packet header further comprises the step of identifying an interrupting of the packet of the low priority.

9. (original) The method of claim 1, wherein the step of flagging a packet header further comprises the step of identifying an interrupted packet.

10. (original) The method of claim 1, wherein the step of placing the remainder of the packet having a low priority in a storage device further comprises transferring the remainder of the packet to a queue.

11. (currently amended) In a network designed to transport a plurality of types of packets each having a different priority, an apparatus for appending multiple packet types to effect predictable transmission in a shared packet pipe, the apparatus comprising:

a shared packet pipe;

a signal transmission means communicatively coupled to the shared packet pipe,

a controller connected to the shared packet pipe; and

a signal receiving means connected to a shared packet pipe, wherein the packet prioritization and transmission algorithm is stored in the controller and is used by the controller to regulate the transmission of packets through the standard packet pipe, wherein the controller is programmed to insert a packet flag at a place in which the packet is to be divided after prematurely ending the transmission of a packet having a low priority, wherein inserting the packet flag further comprises determining the priority of an incoming packet, and wherein determining the priority of an incoming packet further comprises checking a CRC on the packet having a low priority.

12. (canceled)

13. (original) The apparatus of claim 11, wherein the controller is programmed to periodically check the priority of the data packet being transmitted after flagging the packet header.

14. (original) The apparatus of claim 11, wherein the controller is programmed to identify the packet of a low priority and to identify a beginning of the packet of a high priority after flagging the packet header.

15. (currently amended) The apparatus of claim 11, wherein the controller is programmed to determine the priority of a high priority packet based on the results of the CRC check on the packet having the low priority.

16. (original) The apparatus of claim 11, wherein the controller is programmed to identify an interrupting of the packet of the low priority after flagging a packet header.

17. (original) The apparatus of claim 11, wherein the controller is programmed to identify the priority of an interrupted packet after flagging a packet header.

18. (original) The apparatus of claim 11, wherein the controller is programmed to check the CRC on the packet having a low priority after determining the priority of an incoming packet.

19. (original) The apparatus of claim 11, wherein the controller is programmed to transfer the remainder of the packet having a low priority to storage device.